

CLAIM AMENDMENTS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of detecting intrusion in a host via a monitoring daemon operating in conjunction with a configuration file defining data entities to be monitored, the method comprising:

monitoring data entities by comparing a locally stored copy of a digital signature associated with each data entity against a corresponding digital signature stored in a first remote database; and

upon identifying a mismatch in compared digital signatures, issuing an instruction to record an entry in a log file located in a second remote database, said entry identifying a possible intrusion in a host, and issuing a command to an operating system of said host to bring said host to a single user state[[:]], wherein the command limits the access to a single user and the access is physical to an interface of the host computer.

2. (Previously presented) The method of claim 1, further comprising issuing a command to bring down one or more network interfaces of said host to isolate said host upon identifying the mismatch in compared digital signatures.

3. (Cancelled).

4. (Previously presented) The method of claim 1, wherein said first remote database and said second remote database are located on a single server or a plurality of servers belonging to a local area network.

5. (Currently amended) The method of claim 1, wherein communications between said host and said first remote database are encrypted.

6. (Currently amended) The method of claim 1, wherein communications between said host and said second remote database are encrypted.

7. (Previously presented) The method of claim 1, wherein said digital signature is an MD5 signature and said first remote database is an MD5 database.

8. (Previously presented) The method of claim 1, wherein said second remote database is a SYSLOG database.

9. (Previously presented) The method of claim 1, wherein said data entities comprise one or more of files, configuration files, and directories.

10. (Currently amended) A system to detect intrusion comprising:
a host running a monitoring daemon working in conjunction with a configuration file,
said configuration file identifying files and directories to be monitored in said host
and said host communicating with external networks via one or more network
interfaces, said monitoring daemon dynamically monitoring said files and
directories identified by said configuration file by comparing a locally stored
digital signature corresponding to each file or directory against a remotely stored
corresponding digital signature;
a digital signature database remote from said host storing said digital signatures
associated with files and directories identified by said configuration file; and
a log database remote from said host recording entries corresponding to mismatches
between a digital signature stored in said host and a corresponding digital
signature in said digital signature database,
wherein a mismatch identifies a possible intrusion in the host, resulting in a command
being issued to an operating system of said host to bring said host to a single user
state[[:]], wherein the command limits the access to a single user and the access is
physical to an interface of the host computer.

11. (Previously presented) The system of claim 10, wherein said digital signature database and said log database are located on a single server or a plurality of servers belonging to a local area network.

12. (Previously presented) The system of claim 10, wherein communications between said host and said digital signature database are encrypted.

13. (Currently amended) The system of claim 10, wherein communications between said host and said log database are encrypted.

14. (Previously presented) The system of claim 10, wherein said digital signature is an MD5 signature and said first remote database is an MD5 database.

15. (Currently amended) An article of manufacture comprising a computer usable storage medium having computer readable program code embedded therein to detect intrusion in a host via a monitoring daemon operating in conjunction with a configuration file defining data entities to be monitored, said medium comprising:

computer readable program code comprising executable instructions to monitor data entities via comparing a locally stored copy of a digital signature associated with each data entity against a corresponding digital signature stored in a first remote database;

computer readable program code comprising executable instructions to issue an instruction to record an entry in a log file located in a second remote database upon identifying a mismatch in compared digital signatures, said entry identifying a possible intrusion in a host; and

computer readable program code comprising executable instructions to issue a command to an operating system of said host to bring said host to a single user state upon identifying the mismatch in compared digital signatures[[:]], wherein the command limits the access to a single user and the access is physical to an interface of the host computer.

16. (Currently amended) The article of manufacture of ~~[[15]]~~ claim 15, further comprising computer readable program code comprising executable instructions to issue a command to bring down one or more network interfaces to isolate said host upon identifying the mismatch in compared digital signatures.

17. (Cancelled).

18. (Currently amended) An intrusion detection and isolation method implemented using a monitoring daemon in a host, said host having one or more network interfaces to communicate over one or more networks, said method comprising:

reading a configuration file to identify data entities to be monitored on a host;
for each data entity to be monitored, extracting a digital signature from said host;
for each data entity to be monitored, querying a remote digital signature database via said one or more network interfaces and requesting a digital signature corresponding to said digital signature extracted from said host;
for each data entity to be monitored, receiving said corresponding digital signature from said remote digital signature database;
matching digital signature received from said remote digital signature database with digital signature extracted at said host;
upon identifying a mismatch, transmitting an instruction to a remote log database via said one or more network interfaces, said instruction executed in said remote log database to record an entry in a log file indicating a possible intrusion in said host;
and
issuing a command to an operating system of said host to bring said host to a single user state~~[[;]]~~, wherein the command limits the access to a single user and the access is physical to an interface of the host ~~computer~~.

19. (Currently amended) The intrusion detection and isolation method of claim 18, wherein said remote digital signature database and said remote log database are located on a single server or a plurality of servers belonging to a local area network.

20. (Currently amended) The intrusion detection and isolation method of claim 18, wherein communications between said host and said remote digital signature database are encrypted.

21. (Currently amended) The intrusion detection and isolation method of claim 18, wherein communications between said host and said remote log database are encrypted.

22. (Currently amended) The intrusion detection and isolation method of claim 18, wherein said remote digital signature database is an MD5 database.

23. (Currently amended) The intrusion detection and isolation method of claim 18, wherein said remote log database is a SYSLOG database.

24. (Previously presented) The intrusion detection and isolation method of claim 18, wherein said data entities are any of the following: system files, configuration files, or directories.

25. (Previously presented) The intrusion detection and isolation method of claim 18, further comprising issuing a command to bring down said one or more network interfaces to isolate said host.